MARINE RECORD

ESTABLISHED 1878.

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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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THE NEW LIEN REGULATIONS.

The regulations under the new law, amending Section 2981 of the Revised Statutes, as relating to liens for freight, charges or contributions in general average, have been completed and sent out by Acting Secretary Hamlin of the Treasury. The text of the Treasury circular on the subject is as follows:

Liens for freight, charges, or contribution in general average. Amendment of Section 2981, Revised Statutes:

Treasury Department, Office of the Secretary,
WASHINGTON, D. C., Oct. 2, 1896.

To Collectors and Other Officers of the Customs:

The following Act of Congress, approved May 21, 1896, is published for the information of all concerned:

An Act to amend section twenty-nine hundred and eighty-one of the Revised Statutes, as amended by the Act of June tenth, eighteen hundred and eighty.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that section twenty-nine hundred and eighty-one of the Revised Statutes be amended so as to read as follows:

"Sec. 2981. That whenever the collector of the port of entry of the vessel, or other proper officer of the customs, shall be duly notified in writing of the existence of a lien for freight, charges, or contribution in general average upon imported goods, wares or merchandise in his custody, he shall, before delivering such goods, wares or merchandise to the importer, owner, or consignee thereof for consumption, or to any vessel or vehicle for transportation or exportation, give seasonable notice to the party or parties claiming the lien; and the possession by the officers of customs shall not affect the discharge of such lien, under such regulations as the Secretary of the Treasury may prescribe; and such officers shall refuse the delivery of such merchandise from any public or bonded warehouse or other place in which the same shall be deposited until proof to his satisfaction shall be produced that the freight, charges or contribution in general average thereon has been paid or secured; but the rights of the United States shall not be prejudiced thereby, nor shall the United States or its officers be in any manner liable for losses consequent upon such refusal to deliver. If merchandise so subject to a lien, regarding which notice has been filed, shall be forfeited to the United States and sold, the freight, charges or contribution, in general average due thereon, shall be paid from the proceeds of such sale in the same manner as other charges and expenses authorized by law to be paid therefrom are paid."

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

MENDOTA LIGHT STATION.—Notice is hereby given that, on or about Oct. 31, 1896, the fourth order light at this station at the entrance to Lac la Belle, Bete Grise Bay, south side of the outer end of Keeweenaw Peninsula, Lake Superior, now showing fixed white varied by a white flash every 45 seconds, will be changed to show fixed white. No other change will be made.

By order of the Light-House Board:

JOHN G. WALKER, Rear Admiral U. S. Navy,
Chairman.

OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., Oct. 20, 1896.

STRUCK A BOULDER.

The first of the straudings on account of the opening of the new cut at Sailors' Encampment took place last Friday morning, when the steel steamer L. C. Waldo, bound down with grain from Duluth, struck a boulder at Nine Mile Point, in Hay Lake. A large hole was crushed in on the starboard side. The Waldo returned to the "Soo" drawing 17 feet forward and 16 feet 6 inches aft, with a heavy list to starboard. When she struck she was drawing 16 feet. It is expected many hidden obstructions will be located by vessels since they have begun loading some 13 inches deeper than ever before.

TO CONSERVE OUR WATERWAYS.

It is more than a pleasure to see that the Buffalo Commercial upholds river and harbor improvements in the following strain: "An article on Buffalo's harbor improvements appears on another page of the Commercial to-day (Saturday), and will be of interest, not only to Buffalonians, but to residents of other ports of the Great Lakes and to all interested in the extensive shipping enterprises which will receive such an impetus from the new harbor, to be built by the government at a cost of $2,200,000. Since the first report of the board of engineers was approved by the War Department, the original plan has been almost entirely changed, and the specifications, which will be ready for distribution among contractors next week, are along the line of a report submitted by Major Symons, Corps of Engineers, U. S. A., of this city. Major Symons's report, in fact, embodies the new plan of breakwater extension. He has several times visited Washington to urge the necessity for the work in Buffalo's harbor, and has finally succeeded in bringing the work to a place where contracts are to be opened next month and work will be begun in the early spring. The new breakwater will give Buffalo a superb waterway, and will materially increase the shipping and commercial interests of the city. The people of Buffalo are under obligations to Major Symons, who is one of the most active, intelligent and efficient officers that have been in charge of this district." To which we may add that the Corps of Engineers, U. S. A., are uniformly as our Buffalo friend so aptly describes Major Symons.

A LIFE-SAVING DEVICE.

A life-saving device invented by Lieutenant Anton Racic, of the Austro-Hungarian navy, has been tried at Hamburg in the outer basin of the Alster. The apparatus consists of a metal ball, filled with air compressed under a pressure of $\frac{15}{16}$ atmosphere, to which are appended two half-circular wings, made of thin sail cloth, and covered with caoutchouc. When the apparatus is to be used a small screw on the top of the ball is turned, and a thin metal plate that has prevented the escape of the compressed air is pierced; the air streams into the wings and expands them, so that they are able to keep afloat a weight of 38 lbs. The trials proved that the apparatus may hold a person on the surface, but it would have been more efficient if the wings had been provided with strings to fasten the apparatus to the floating person. How it will answer in a seaway remains to be seen. Professional men were of opinion that the apparatus is rather complicated, and deemed it a defect that the ball has always to be filled by an air-pump.

HARBOR FILLING UP.

To prevent Milwaukee harbor from filling up with sand, the United States government has built a breakwater from the shore end of the government pier at North Point to the land. This will prevent the washing in of sand toward the flushing tunnel park. When the government harbor of refuge breakwater was commenced, it was started some 600 feet from shore. The sand washed in to such an extent that finally people could walk out to the pier. It was found upon examination that the whole northern part of the harbor was being gradually filled up, so Capt. Zinn, Corps of Engineers, U. S. A., says and it was determined to put a stop to this.

One reason why the government pier was started some distance from shore was to provide a circulation of water in that part of the bay, the fear being that the water might become stagnant and foul in the northwestern part of the bay, within the breakwater, if it was closed in. The flushing tunnel takes away so much water daily that it is thought there is no danger of that sort now. Besides, there are many land-locked harbors in which no such trouble takes place. Capt. Zinn mentions the harbor at Dover, on the English channel, as an instance. While this little additional breakwater was being built, a heavy northeast storm came up and carried away a part of it. The sand washed through that portion which was broken down, but near the part which remained three feet of sand piled up as a result of one storm. Many acres of "made" land exist near the flushing works and the club house of the Milwaukee Yacht Club.

DEATH FROM AMPUTATION.

The death of Byron Brown occurred at the hospital at St. Catharines, Ont., on Thursday last. Mr. Brown was mate on the steamer Nipigon and met with an accident about three weeks ago in the Welland canal which made the amputation of a leg necessary. This resulted in his death. The remains were taken to his home at Port Huron for burial. He was a brother of Capt. Harvey Brown of the Ogdensburg liner Langdon, and was for a long time mate on the Ogdensburg boats.

NEWS AROUND THE LAKES.

BUFFALO, N. Y.

TONAWANDA LUMBER IMPORTS—THE GRAIN FLEET—A MARINE INSURANCE ITEM—LUMBER FREIGHTS BOOMING.

Special Correspondence to The Marine Record.

The Buffalo morning papers are making a study of the coal freight situation. One has come to the conclusion that they are going still higher and the other is sure they are going down. It is not always well to know too much about a thing that hasn't happened yet unless you are anxious to know a lot of things that are not so.

Here is another insurance case in part. On the 22nd of September, the steamer Fedora sank the little schooner David Macy off the "Dummy." She is valued at $1,500 in the Lloyds, but the owner in making up his claim for the loss throws in for about twice that amount. The insurance people are wondering how the case can be figured out that way.

The wet-grain people are roosting high and waiting for the steamer Waldo to come down, as she is certain to have a lot of it in her cargo. Their first cousins, the wet flour men, are complaining that they haven't had an inning yet this summer, which is to say that the line boats are having a remarkably clean season so far, and so they are. But the flour men may get there yet before December.

Last week was a big one for sail vessels. The list was good all the week, but one day that arrivals and clearances of sail vessels exceeded steam, which is something that hasn't happened before in several years and was not expected to happen again in the history of the lakes. The canal schooners are getting considerable grain to bring down and mostly load with coal the other way and so may make some money yet this fall.

About all the boats tied up here during the unpleasantness are gone or getting ready to go. The Grand Traverse of the Lackawanna line was the only liner outside of the Lehigh coal boats laid up here. She is gone and so are most of them, along with six of the Bradley boats and the Palmer, leaving nothing here that is likely to stay the week out, but a lumber barge or two. Such is life—in the marine business only that the Traverse is gone for good, I guess.

Some of the insurance agents are noting that the Bessemer Steamship Co., met with its first marine loss of the season last week. As it has a dozen vessels in business, some of them for all the season, this is good. The accident occurred at Huron and was sustained by the steamer Fairbairn mostly. She was waiting outside for her consort, the Corliss, and in the rough sea, the tug towed the barge into her, damaging the steamer about $3,000 and the barge about $500. They are at Detroit for repairs.

The grain receipts fell off a trifle last week; the grain business is booming as it never did before. This is something on the line of the king is dead, long live the king, and is intended to mean that the slight decline of business is to be followed by a bigger rush than ever. The new grain fleet is just beginning to come in and will give this port plenty to do as long as the heavy takings at Chicago and Duluth last. There is no complaint of shortage in cars yet and till that comes to head us off, the elevators are good for anything that can come down the lakes.

At present the boom is in lumber. Tonawanda received 30 cargoes in 36 hours and Buffalo took in nearly 15,000,000 feet during the week, most of it during two days. On Thursday morning there went 10,000,000 feet down the Niagara in 25 minutes, as reported from the International Bridge. Large receipts are looked for during the present week. Buffalo took in 20,000 tons of iron ore during the week, a small amount of course as compared with the record of an actual ore port, but considerable for us.

Some things of note are happening in marine insurance. The return to the insurance books of a lot of boats that had tied up for good is keeping the agents cheerful. Our friend McFall, of Marine Lloyds fame, is back again from the south, where the climate did not appear to agree with him, and some of the owners of the ocean schooner Robert J. Barr are up from Philadelphia to see why the Niagara Lloyds company does not pay up on her, as she was lost some time ago. This company is winding up its business, but as its existing policies are well covered by the names of well-known vesselmen, most of them resident at Cleveland, the $1,000 claim ought to be good.

There has been a return of the epidemic of low water during the past week and several neat bills of expense have been run up on account of it. The experiences of the steamer H. H. Brown in getting to the Tifft farm have been told, but the picture of the big handsome captain, coming gingerly into the tug office when he was ready to leave and meekly asking if he would be allowed to escape if he would leave all the money there that he had left, has not been drawn. It should not be forgotten that the steamer Weston went aground at Tonawanda last week, just before she got to her lumber dock and had to be lightered. Buffalo doesn't care for any more of this sort of glory than she is entitled to, but if the east wind will blow all the water into Toledo, what is to be done?

They say that the big new flour warehouse of the Northern Steamship Co., is out of limbo at last. It was finished practically some time ago, and people wondered why it was not used. Then it developed that the eastbound railroads were holding it up by declining to stand the switching charges from it to the main lines, a matter of $1.10 per car, not much it would seem, but enough to take the edge off of such freight rates as are being paid these days But Manager Farrington has been down lately and it is reported that the matter is fixed up. All of which is a reminder that the steamer Globe is here again with cut-rate flour, which the trunk lines are in the habit of refusing whenever they get a chance. The fight has been over the Gorden line from Manitowoc a good part of the summer and a skirmish is in order as soon as the Globe comes into port. There was a truce last trip, for she brought only grain. Now she has a lot of flour besides.

CHAMBERLIN.

CHICAGO.

Special Correspondence to The Marine Record.

H. W. Cook & Co. chartered the steamer New Orleans and schooner George J. Boyce for clipped oats to Port Huron at 1½ cents.

Captain John Prindivil'e chartered the steamer Niko and consort Churchill, and steamer Pontiac, for corn to Buffalo at 2 cents; the steamer Cadillac corn to Prescott at 3⅛ cents.

The schooner T. Y. Avery, loaded with cedar posts, became water-logged and sank in the river at the Rock Island dock at 16th street, on Monday afternoon.

At Miller Brothers' shipyard the schooner A. W. Luckey was in dock and received some bottom calking. The steamer City of Traverse was in for a new rudder and some repairs to shoe.

At the Independent Tug Line's floating dry-dock the tug Success had her bottom re-calked and repairs to rudder and shoe. The steamer George T. Burroughs is in and will receive a partial rebuild.

Carr & Blair chartered the steamer Sauber for corn to Buffalo at 2 cents; steamer Katahdin for corn to Kingston at 3¼ cents, free of tolls; steamer Gogebec corn to Buffalo at 2 cents; barge Sewabic rye to Buffalo at 1⅞ cents; steamer Edward Smith No. 2 corn to Detroit at 1⅝ cents.

J. A. Calbick & Co. chartered the steamer Aragon for corn to Buffalo at 2 cents; steamer Argo and consort Wall for lumber, Ashland to Duluth, at $2. They have chartered for two million feet of lumber, West Superior to Michigan City, at $2.25, boats not named.

Robert Kelley, for over 40 years a cook on vessels trading out of this port, died at his home, No. 3704 Emerald avenue, on the morning of October 17th, after a protracted illness. The deceased had been cook on the steamer Albert Soper for the last ten years. He had a large circle of friends and was much respected.

When the steamer Curry arrived in port Saturday afternoon at 3 o'clock, she had in tow the tug Charm, of Kenosha, which she had taken in tow at 11 o'clock in the morning on Lake Michigan. The tug's machinery was disabled at 6 o'clock in the morning, and she drifted around in the storm until picked up by the Curry. The crew of the tug were all saved, but A. H. Clunder, father of the captain, had his leg badly injured through the tow post pulling out.

The L. M. & L. S. Transportation Co.'s steamer City of Traverse, which was at Saint Joseph with disabled machinery, was towed to Chicago, Saturday, by the tugs Perfection and Andy. The Traverse lost her rudder while being towed out of St. Joseph's harbor, and the tugs experienced considerable trouble in towing the steamer across Lake Michigan, as the wind was blowing fresh and a big sea was running. The Traverse went into dock on her arrival and received a new rudder. Her machinery has also received necessary repairs.

Captain W. H. Rounds, aged 73 years, died at his home, No. 5927 Midway Park, Austin, Illinois, from general debility, on Monday night. His health had been failing for several months past. The deceased was marine inspector and agent of the Ætna Insurance Co., which position he held since the year 1871, prior to which date he sailed on the lakes as sailor, mate and captain from an early age. He was a man of the strictest integrity and uprightness in all his transactions, and leaves behind him a large circle of marine and other friends to honor his memory and regret his loss. His funeral takes place Wednesday afternoon at 2 o'clock, and will be attended by all his old marine friends who are able to attend, many of whom have already attained to the sere and yellow leaf, and will wonder whose turn will come next to follow in the wake of their dear departed friend over the dark river.

WILLIAMS.

Chicago, Oct. 20, '96.

CLEVELAND.

Special Correspondence to The Marine Record.

The Globe Iron Works will build a 380 foot schooner for the Bessemer Steamship Co., to be finished by next May.

At public auction Deputy United States Marshal Keely sold on Saturday, as announced in THE RECORD, the tug Wilson to satisfy claims held against her. The boat brought $4,775. James Rooney, of Toledo, was the purchaser. She was built for $10,000 four years ago and is considered worth at least $8,000. The priority of claims has not yet been determined, but must be decided in court.

Perhaps the editor of the RECORD can tell me why the life-saving crew continued its search on Monday, for the body of Fireman Lewis Roscrans. Furthermore, a member of the life-saving crew was to search along the beach from Case avenue eastward. Is this not entrenching on private work?

Capt. H. N. Stone, of the steamer North Land, and his father, Capt. George Stone, of Cleveland, are at the Central House en route for points in Canada, says the Conneaut Herald. They will go over to-night on Shenango, No. 2. The elder Mr. Stone is an old lake captain. He was in our port in 1844 with the Dayton, and since that time he has been master of many other crafts. Capt. Stone, in speaking of the recent accident to the North Land, said it was done through carelessness and was not the work of malicious persons.

A special from Washington says that "Secretary of War Lamont, is now examining the project submitted by Jared A. Smith, Corps of Engineers, U. S. A., for the improvement for the harbor at Cleveland, and there is reason to believe that he will in a short time give it his official approval. It is not the purpose of the government to begin operation on the improvements under the continuing contracts until spring. Meantime however, the plans for the work will be perfected, contracts advertised for and let, and everything made ready for starting upon the work as soon as spring opens." I think it is right to state that the colonel's views are concurred in by the leading marine men of this port.

In the case of Farasey and Marron against the Grummond steamship line, Louise B. Grummond, owner, the jury not only failed to bring in a verdict for the plaintiffs, but awarded the defendant $286.41, this sum being due the defendant for services rendered. The suit is an old one and grew out of a contract made in 1894, between Mrs. Grummond and the Farasey company. The former signed a contract to the effect that she would employ the Farasey company as forwarding agents. She afterwards became dissatisfied with their work and employed another firm. The Farasey company immediately brought suit against Mrs. Grummond for $600, for alleged breach of contract. The lawyers for the defense contended that the matter of employing agents was purely optional and could not be made binding by a contract.

Deeds are being executed for the transfer of the title to a tract of land along the west bank of the Cuyahoga River from the Lake Shore Railroad Co. to the city. The land runs from the mouth of the river back nearly a mile, and is wanted by the city for the widening of the river. It is one hundred feet wide and is estimated to be worth $300,000. Another strip of land will be deeded by the company to the city, and when this is done the river improvement can go ahead. The deeds are expected to be in the city's hands this week. The consideration which Cleveland gives for this property is the relinquishment of part of its rights under an old contract which made it imperative upon the railroad company to build and maintain a swing bridge at the west end of the old river channel if the city should take a notion to cut the channel through to the lake. The city intends to cut the channel through to the lake, but will allow the railroad company to span it with a stationary iron bridge.

SWAIN.

MANITOWOC, WIS.

Special Correspondence to The Marine Record.

At Burger & Burger's shipyard the steamer Nyack is in dry-dock receiving new arches and arch posts, part new deck frames, part new main deck, new guards and new stanchions all around, new plank sheers, new upper deck outside of cabin and plank sheer and rail, new bulwarks, new stem and re-calking all over, also new clerk's and steward's offices and a new stairway finished in hard wood. The tug Hoffnung has been re-built and received a new boiler. The steamer Sheboygan is to receive a thorough re-build.

The Manitowoc Steam Boiler Works are putting a new water bottom and doing considerable work on the furnaces of the boiler of the steamer Nyack. They have just completed a marine fire box boiler, 5½ by 11, allowed 140 lbs. steam pressure for the tug Hoffnung. They are rebuilding the boiler of the tug Fred Kasten, and have done a good summer's work.

P. D'Amfreville, the eminent French statistician, has recently compiled a new estimate of the population of the globe. The total population is given as 1,400,000,000, distributed as follows: Asia, 825,950,000; Europe, 357,379,000; Africa, 163,933,000; America, 121,713,000; Oceanica and the Polar regions, 7,500,400; Australia, 3,230,000. Out of every 1,000 inhabitants of the globe, 558 live in Asia, 242 in Europe, 111 in Africa, 82 in America, 5 in Oceanica and the Polar regions and only 2 in Australia. The number of inhabitants per square mile is: In Europe, 95; in Asia, 48; in Africa, 15; in America, 8; in Oceanica and the Polar regions, 3; and in Australia it is only 1.

FLOTSAM, JETSAM AND LAGAN.

Captain James Davidson's modern and as yet unnamed wooden steamer, which is to be one of the finest of her class on the lakes, was launched from his yards Thursday afternoon. She is 285 feet long, 43½ feet beam, and 25 feet molded depth. She will not go into service until next year.

THE LADY AND THE TRAMP.—"What do you say, my good man?—that you would like me to do a little sewing for you?" "Yes, please, mum; I've a shirt-button here, and ifyer would be so kind as ter sew a shirt on it I'd be greatly obliged ter you."

Commander Dayton, U. S. N., in charge of the light-house district, has recommended that the United States engineers be requested to remove the wreck of the schooner Colonel Ellsworth, sunk in the Straits of Mackinac, as she is a menace to navigation, lying in the channel used by nearly all vessels.

The Myers' diving outfit has been landed from the steamer Jenks, and will remain in charge of the sheriff at Alpena. The Jenks will go back into the lumber trade. The attachments against the outfit now amount to several thousand dollars, one having been placed this week and if the claims are not liquidated the apparatus, it is said, will be sold.

The steamer Queen City loaded on Wednesday last 134,000 bushels of wheat and 42,000 bushels of rye at Duluth, breaking her own record of 157,000 bushels of wheat. This immense cargo, which amounts to 5,196 net tons, was made possible by the new draft of water through St. Mary's River, by the completion of the cut through Sailors' Encampment. Her draft under former conditions would have been a little over 14 feet, while she loaded to 15 feet 6 inches on her record cargo.

Sailors are proverbially superstitious, but it is not perhaps generally known that shipbuilders have their superstitions also. The workers at Barrow-in-Furness, for instance, make it a point of carrying a black cat on every ship that is built there. They consider that this brings luck to the ship. A cat has also been placed on the torpedo destroyers and lovingly tended by the men. Now the great cruiser Powerful, running her trials in the English Channel, has a little black cat on board and her presence is said to have brought confidence to the stokers and engineers even in the recent storms.

A contemporary tells of a certain Dennis O'Houlihan, who was once elected tax assessor in Harlem. Mr. Michael O'Toole, who was a friend of O'Houlihan, confidently looked for some recognition of that friendship in his tax bill; but when the bill came, Michael was filled with wrath. His estate was indeed treated with consideration, but his goat was taxed eight dollars, and he expressed his indignation rather freely. "Be aisy now," replied the assessor. "Shure I couldn't help it. 'Tis down in the book 'two dollars a running foot' an' begorra, your dom goat has four of thim."

The little steamer Elsa, built at Sandusky in 1894 by the late Capt. John E. Monk, will leave these waters next Monday, bound for South America. The sale which had been pending several weeks was consummated a few days ago, the purchasers being a party of Norwalk gentlemen. The boat is now securing a new after-cabin, the work being done by the Sandusky Dry-Dock Co. at the Warren street slip. The steamer was valued at $6,000, and was sold for $3,000. Her new owners will use the boat in the coasting trade off Venezuela. On the way down a stop will be made at Chicago, where a new engine will be placed in her, after which she will steam for the Mississippi, thence down to the Gulf and across to the South American republic.

The steamer Grand Traverse, of the Lackawanna Line, and the steamer Livingstone collided early Tuesday morning near Colchester light, Lake Erie. The Grand Traverse sank immediately, the crew being taken off by the Livingstone. There is now nothing to be seen of the sunken boat but the spars and smoke-stack. The Livingstone turned back and arrived at Amherstburg about noon. The Grand Traverse, after being laid up most of the season, went into commission at noon Sunday and had not been in service 24 hours before she was sunk. The Livingtone had also been out of commission, but was loaded with grain at Chicago Friday. The Grand Traverse was insured for $24,000. She was built in 1879 and measured 869 tons.

The last issue of Fairplay, London, has the following: "I hear that a managing-owner, *in esse* or *in posse*, has received a proposal from a shipbuilding firm offering to build him a steamer of 6,000 tons deadweight or thereabouts, for somewhat over £30,000, the amount which is to be paid down in cash by the date of delivery being only £2,000, the shipbuilding firm accepting a mortgage on the steamer for the remainder of the cost. The receiver of this proposal either does not see his way to get up the small cash proprietary, or has other reasons for not availing himself of the remarkable facilities offered. He believes, it is said, that he could induce the shipbuilders to make the cash payment £1,500 instead of £2,000 if he was prepared to come to terms with them."

One of the most interesting and exciting contests that ever took place on the lakes ended when the 400-foot steel freighter, the E. W. Oglebay, steamed into Chicago nearly an hour ahead of her rival, the Owego, after a race from Cleveland to Chicago. The Owego was acknowledged, previous to this race, to be the fastest boat among the freighters and her title to this distinction was never questioned until the result of the race was made known on Saturday. The Oglebay broke all previous freight records by making the trip from the "Soo," a distance of 397 miles, in 24 hours and 6 minutes. Capt. Hutchinson said: "We can go at a rate of close on to 18 statute miles an hour." Oglebay started on the lakes June 2.

ABSTRACT OF BIDS

Opened Oct. 20, 1896, at Duluth, Minn., for riprap embankment at Agate Bay, Minn., by Maj. Clinton B. Sears, Corps of Engineers, U. S. Army:

No.	Name and address of bidder.	410 feet of embankment, more or less, per running foot of embankment.
1.	Wm. H. Randall, West Duluth, Minn	$91.34
2.	Jacob H. Carlson, Duluth, Minn	71.15
3.	Samuel Menicce, Duluth, Minn	84.20
4.	Tulloch Bros. & Magee, Duluth, Minn	85.90
5.	A. & D. Sang, Duluth, Minn	89.25
6.	Jacob Zimmerman, Duluth, Minn	75.48
7.	G. R. King and Hugh Steele, Duluth, Minn	71.90
8.	Cooper & Doubleday, St. Paul, Minn	157.98
9.	Elisha G. Gay, Oneida, N. Y	205.00
10.	Wm. McCurdy, Houghton, Mich., and Alex McCurdy, Duluth, Minn	81.00
11.	Powell & Mitchell, Marquette, Mich	76.48
12.	Porter Bros., Duluth, Minn	63.17
13.	Walter H. Singer, Duluth, Minn	84.00

LIGHT-HOUSE APPOINTMENTS.

Secretary Carlisle has appointed Leon D. Wilson first assistant keeper of light station at Skillagalee, Mich.; David D. Spaulding, second assistant at Spectacle station; and Thomas Gallagher, assistant at Big Bay Point station.

TACKLES AND THEIR POWER.

In any kind of tackle the power applied to the fall multiplied by the number of parts at the traveling block gives the purchase, or the power multiplied by twice the number of sheaves in the traveling block gives the same result if the standing part is fast to fixed block. Hence, in a single whip the power balances the weight, therefore, a single block gives no purchase, but merely changes the direction of the power. In a whip and runner the purchase is twice the power. In a gun-tackle there are two parts of the fall at one block and three at the other, hence, its purchase will be twice the power when the block with two posts is made the traveling block, and three times the power when the traveling block is the one hauled upon.

The luff-tackle, which consists of a double and single block, has three parts at the single block and four parts at the double block; hence, with the single block traveling, the purchase is three times the power, and with the double block traveling, four times the power. A tackle rove with two double blocks has four parts at one block and five at the other; hence, the purchase is four and five times the power, according to the block which is traveling. The jeer or purchase tackle, which has three sheaves in each block, has six parts at one block and seven at the other. Therefore, the purchase of this tackle is six times and seven times the power, according to which is made the traveling block. The single burton consists of a fixed single block through which is rove one end of a fall; this end is spliced or seized round another single block which travels; through this traveling block is rove the other end of the fall, while into the bight between the fixed and traveling blocks is seized a hook. At the traveling block are three parts of the fall; therefore, the purchase is three time the power. Although the purchase is the same as that of the luff-tackle; yet it has the advantage over the latter of being easily and quickly rounded in and overhauled; hence, it is largely used in working cargo, but it requires a long drift for a short hoist.

Many combinations of these purchases may be made, such as a luff upon a runner used in setting up rigging; it doubles the power of the luff. A runner upon a luff, when the double block is the traveler gives a purchase of eight times the power. A general rule for finding the purchase of any combination of tackles is: Multiply the purchase of the tackle applied to its hauling part. The practical efficiency of tackles, differs from the above given theoretical purchase owing to the stiffness of the rope, and the friction of the sheaves and pins of the blocks; it also depends on the size of the rope in relation to the swallow of the blocks and the diameter of the sheaves; therefore, the fall should run in the score of the sheaves free from the shell of the block and the diameter of the sheaves can never be too great for the efficient working of, and fair play to the rope, especially if it is at all stiff. Some practical men increase the weight to be lifted by 12 per cent. of itself for every sheave in the purchase; this may be considered in practice as ⅛ of the weight for every sheave; hence, to calculate the effective purchase of a tackle, the following is the rule: Multiply ⅛ of the weight to be lifted by the number of sheaves in use, add the product to the weight itself and divide the sum by the theoretical purchase, the result will be the practical power to be applied to the fall.

Examples. Example I.—What power will be required to lift 8 tons with two treble blocks, the hauling part of the fall leading direct from the upper block?

Here we have 6 sheaves, for each of which must be added to the weight 8 tons, ⅛ of itself; therefore, since ⅛ of 8 tons=1 ton, and there are 6 sheaves,

8 plus 6=14 tons=the resistance.

Divide by the theoretical purchase 6; therefore,

$\frac{14}{6}$=2⅓ tons=the power to be applied to the fall.

Example II.—A purchase consists of two treble blocks and the fall leads through a block on deck. What power will be required to lift 16 tons?

In this system there are 7 sheaves:—

Therefore, 16 plus ⅞ of 16=16 plus 14=30 tons, the practical resistance.

The theoretical purchase is 6; therefore,

$\frac{30}{6}$=5 tons=the power required.

Example III.—A purchase consists of two treble blocks, and the standing part of the fall is made fast to the traveling block, while the running part leads down through a block at the mast head. What power will be required to lift 16 tons?

In this case there are 7 parts at the traveling block, therefore, by the rule, the theoretical purchase is 7; there are also 7 sheaves in use, therefore, the resistance is:

16⅞ of 16, 16, 14, 30 tons.

Divide by the theoretical purchase, therefore,

$\frac{30}{6} \times 4\frac{3}{7}$ tons = the power required.

Example IV.—A purchase of two treble blocks has the standing part fast to the traveling block, and the fall leads direct to the winch. What power will be required to lift 20 tons?

Since the standing part is fast to the traveling block, the fall leads from it direct to the winch; hence, there are 6 sheaves in use, and the theoretical purchase is 7; therefore,

20 plus ⅞ of 20 = 20 plus 15 = 35 tons resistance.

Therefore, the power required is:

$\frac{35}{7}$ = 5 tons.

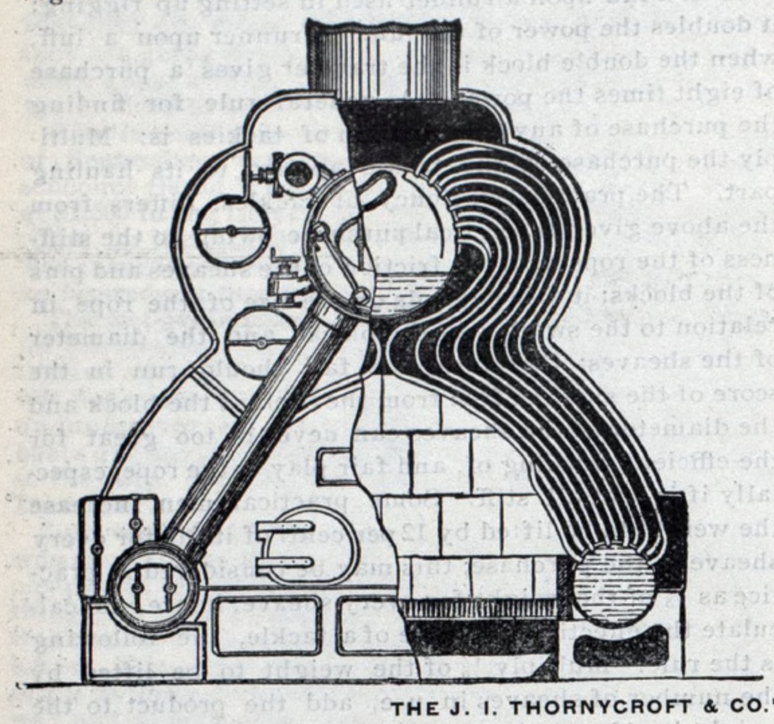
—From Griffins' Nautical Series.

CAPTAIN ROUNDS DEAD.

Capt. W. H. Rounds, for thirty-eight years engaged in active service on the lakes, either as a navigator or an underwriter, died Monday night, aged seventy-three years. He was born in Sackett's Harbor in 1823, and commanded many well-known boats before he went with the Etna Insurance Co., as lake representative at Chicago, which position he has held most of the time since 1866. Captain Rounds was universally known and respected by his associates.

THE THORNYCROFT WATER-TUBE BOILERS.

In the early days of the steam-engine, when pressures below that of the atmosphere were common, the chief point dwelt upon in considering the strength of a steam boiler was, whether it would collapse or not. As the qualities leading to economy became better understood, the steam pressures in use became higher and higher, till at 160 to 180 pounds per square inch, the practical limit of pressure with the boilers then in vogue was reached. A few cylindrical boilers have been constructed to stand as much as 200 pounds pressure per square inch, but these are exceptional, and owing to their necessarily very thick plates, great care has to be exercised in lighting up the fires, to avoid too rapid local expansion.



THE J. I. THORNYCROFT & CO.'S "SPEEDY" TYPE WATER-TUBE BOILER.

Some years ago Messrs. J. I. Thornycroft & Co. introduced a water-tube boiler, of what is now known as the "Speedy" type, which was intended to do away with the many disadvantages of the boilers then in use in the navy, where forced draught and higher pressures had to be used, and where light weight was of the utmost importance.

In this connection the following extract from an official report of the trials of a cruiser fitted with these boilers is of interest:

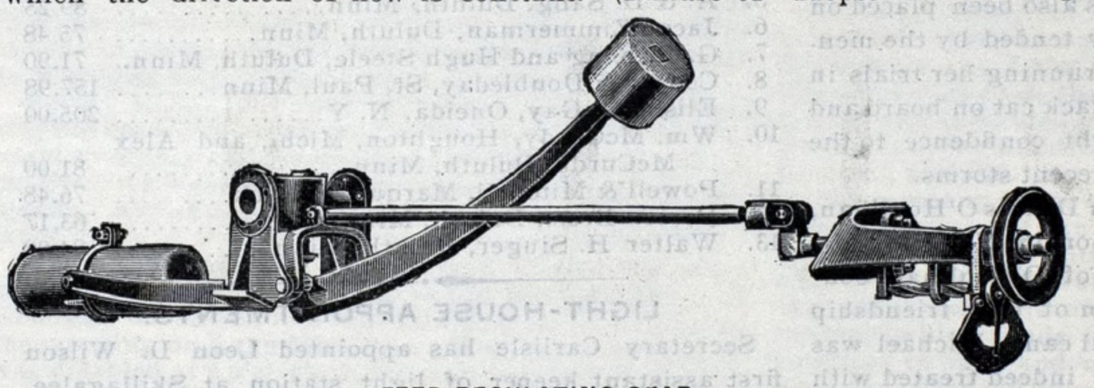
"During the trials the boilers worked most excellently. Steam was kept with the greatest ease; the steam generating power could be regulated nearly immediately to suit the steam consumption of the engines by means of the stop-valves on the steam pipes of the fans. At the end of the sea speed trial, for instance, we forced the engines up to 3,314 indicated horse-power in a few moments, after having steamed over seven and a half hours with an air pressure of about 0.6 in., and could keep the steam, at this high horse-power, with an air pressure of about one inch.

"When going full speed we often stopped the ship immediately, and we could bring the ship up to full speed in a few minutes, it being not necessary to take any regard whatever to these boilers, these being able to stand all sudden changes of temperature. The boilers never primed, neither during the highest forcing nor during sudden changes in the working of the engines."

This quality is, of course, invaluable for naval tactics. The "Speedy" type of boiler proved to be exceedingly economical and so satisfactory that a large demand arose for Thornycroft boilers. The "Daring" type of boiler has the great advantage, for large installation, that having two furnaces it is adapted to supply much more steam from a single boiler than the "Speedy" type, thus reducing the number of boilers necessary in ships of large power. It also occupies less space for a given power, and, owing to its large fire-grate area, it is better adapted for working at moderate rates of combustion. The type to be used, however, is generally determined by the space available and by the position desired for the funnels. A third type, the Thornycroft "Launch" boiler, is strongly recommended for light river work. It is provided with water firebars which are kept so much cooler than ordinary bars by the strong current of water rushing through them that clinkers do not adhere, and a great deal of the trouble usual in firing small boilers is eliminated. Although the circulation due to the Thornycroft principle is so intense that it is usually sufficient to prevent the adhesion of scale to the interior of the tubes, the use of impure water with these boilers is not recommended. With pure water they work well with non-condensing engines, but they are specially adapted for working with forced fires and condensing engines.

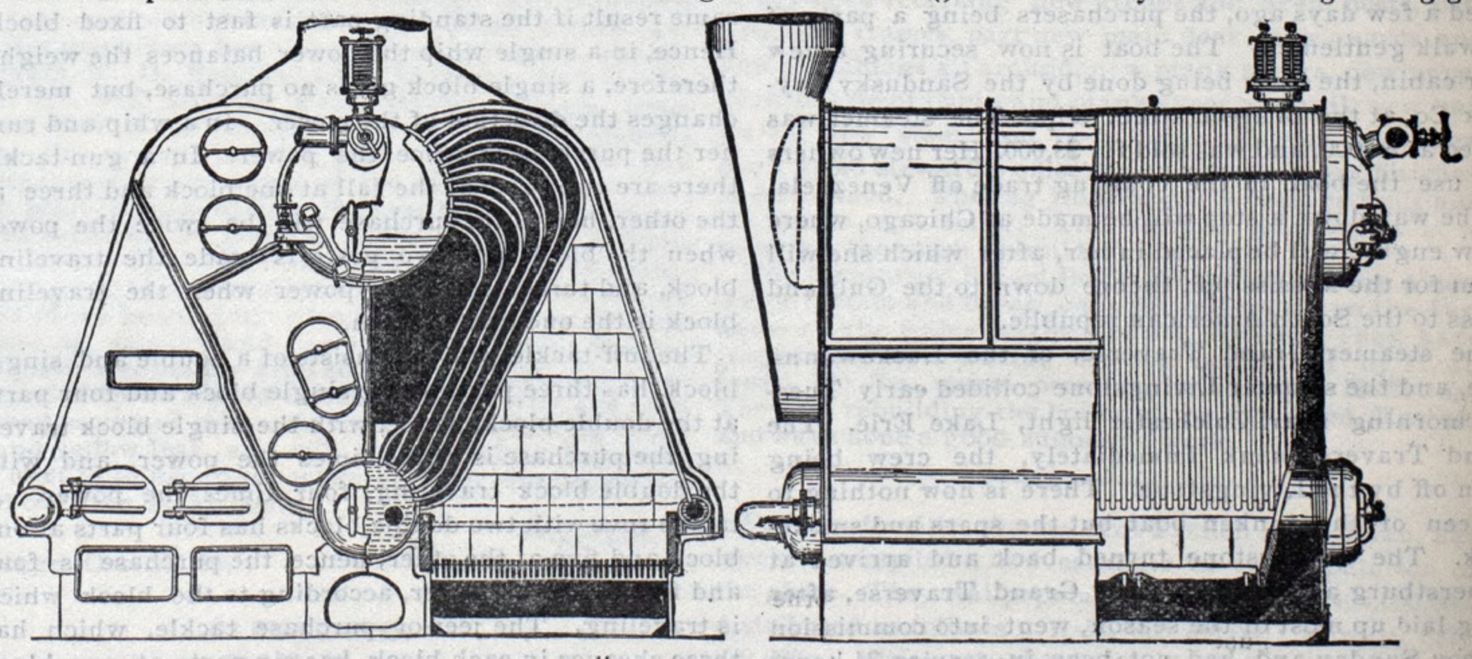
1. The steam generating tubes terminate above the water-line. (This prevents the inflow of water from the top barrel, and so avoids the reversal of current which has been observed in boilers where the tubes end below the water, and which, by allowing time for bubbles to expand into large "steam chambers," is a fruitful source of overheating and danger. Statistics show that in every case where a disastrous explosion of a water-tube boiler has occurred it has been with one or other of the drowned tube types.)

2. Care is taken to provide special return tubes in which the direction of flow is constant. (Failure of many water-tube boilers may be traced to the absence of this essential condition to good circulation.)



FEED REGULATINQ GEAR.

3. Instead of allowing the gases to escape across a sort of grating of water tubes (in which case the hottest gases will be at the top, and so remain the shortest time in contact with the heating surface) flues are provided, the sides of which are formed by water tubes, and the gases are compelled to traverse the whole of the heating surface; they are thus not allowed to escape into the chimney until they have given up a very large proportion of their heat, and as the temperature of the outside of these flue-walls cannot rise above that of the water they contain, loss by radiation is necessarily much less than in boilers where the casings are only protected by so-called non-conducting material. These boilers have probably been subjected to a greater number of scientific experiments and more searching trials than any others.



THORNYCROFT'S "DARING" TYPE WATER-TUBE BOILER.

Where several boilers are fed by a pump common to all, considerable difficulty is often experienced in regulating the admission of feed water. A little extra steam pressure, or a very slight difference in the adjustment of the feed check valves, may prevent a boiler getting so much water as its fellows. This difficulty is partly overcome by fitting a separate pump to each boiler, but if the supply is practically limited to the water condensed from the main engines, a very slight fall or rise in the guage glasses of the majority of the boilers may result in a considerable fluctuation of the water level in the remaining ones.

This has often proved a great objection to the use of boilers grouped as described, and many have been the attempts which various inventors have made to satisfy the demand for a trustworthy apparatus capable of automatically regulating the admission of feed water. Finding there was no apparatus of this kind which could be understood by an ordinary workman and be depended upon not to get out of order, Mr. Thornycroft designed one for use on the vessels constructed by his firm, and in which from three to eight boilers are fed by a single feed pump. Its principle is similar to that of an ordinary ball cock, such as is used on house cisterns. A float "b" formed of solid drawn steel causes a lever "a" to rise and fall with the water level and so to shut or open a valve, placed inside the boiler, which controls the admission of feed water. Neither of the two parts moved by this float lever pass through stuffing boxes (by which their action might be hampered), but they are loosely fitted, and hence work with perfect freedom and certainty.

The important novelty in this invention is the method adopted for enabling the float (and therefore the water level) to be adjusted to stand at a definite height, although the amount of valve opening required to admit sufficient feed water varies with different rates of steaming. This is done either by adjusting the vertical position of the fulcrum of the lever, or by altering the length of the connection between the lever and the valve. The former is the method usually adopted, and is managed in a simple way by mounting the fulcrum of the float-lever on one arm of a bell crank, the position of which can be adjusted by a rod which passes through a stuffing box in front of the boiler, and which is provided with a screwed end. This rod can be moved to and fro by the screwed hub of a hand or chain wheel—an index to show the rate of working for which the position o fulcrum is adjusted completes the apparatus. The actual working of the Thornycroft feed regulating gear has proved eminently satisfactory, and, besides those fitted on boilers of their own manufacture, Messrs. Thornycroft & Co. have executed orders for sets to suit "Yarrow" boilers, loco marine boilers, and Scotch boilers of the largest type in Her Majesty's navy, and they are also applicable to Cornish and other types of land boilers.

Thornycroft & Co. are represented in the United States by Thorpe, Platt & Co., 97 Cedar st., New York.

A BROADSIDE OF SEARCH-LIGHTS.

(ILLUSTRATED)

In the great water of commerce display to take place on Saturday evening, October 24th, electricity will take a leading part in the illumination of the vessels, but surpassing this will be the great display of the Rushmore Dynamo Works, makers of the Rushmore high-power projectors. Their seven-story factory is on the water-front in Jersey City, nearly opposite the reviewing point at the Battery, and on the roof they will have 15 projectors of the most powerful type, which will be operated by skilled attendants who have been drilled to work the lights together to produce some wonderful effects.

As each projector throws an intense beam extending beyond the range of vision—the large number all working together—the western sky will be one blaze of light beside which the Aurora Borealis will pale into insignificance. The large amount of current required will be supplied by a 250 horse-power Corliss engine driving a Rushmore dynamo, which by day furnishes power throughout the works.

A large number of ships in the parade are equipped with projectors, and the intention is to work both the land and floating lights together to give the best effect from the shore.

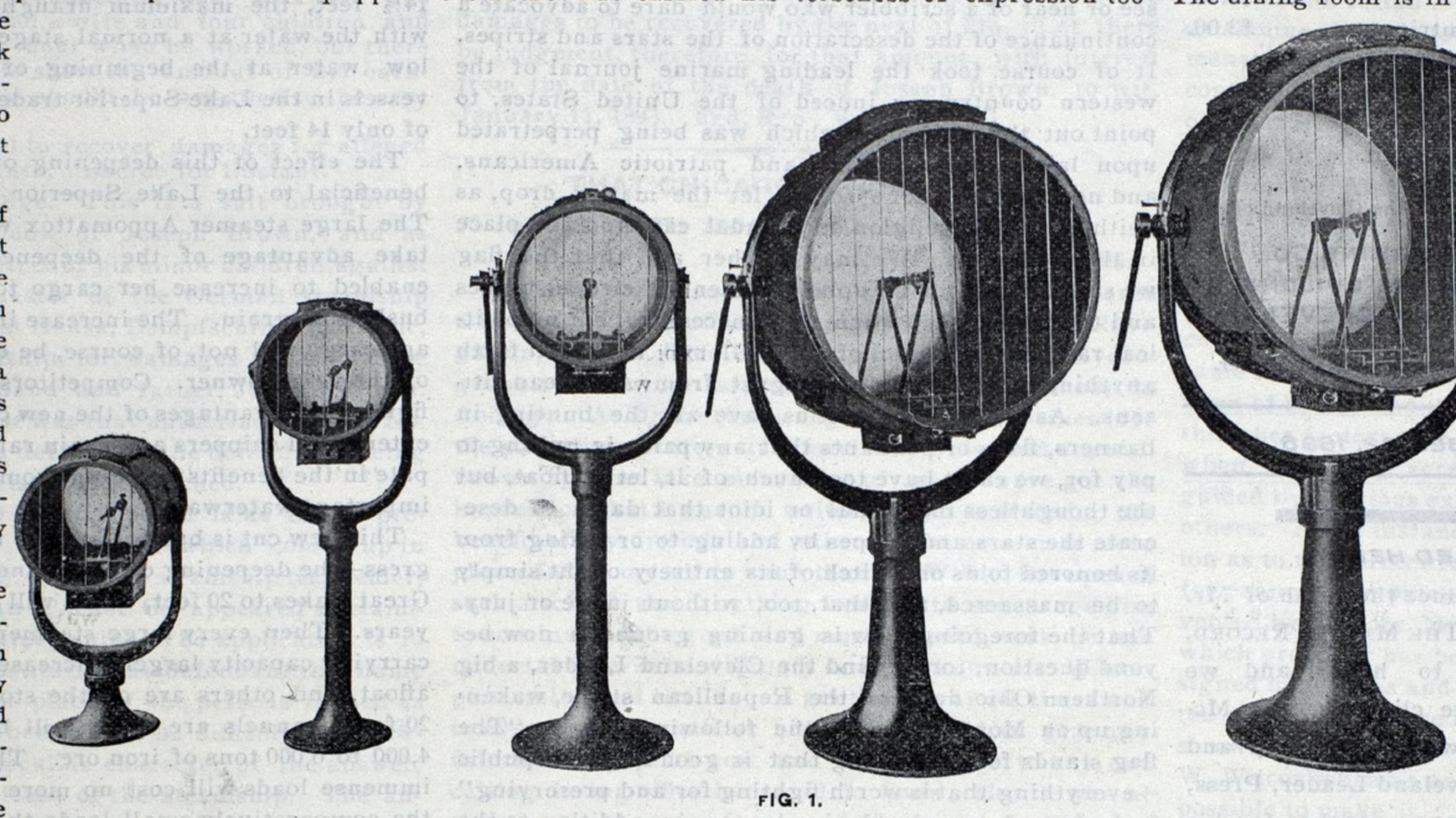


FIG. 1.

The development of the electric search-light is a fair example of the effect of specializing in manufacture, and the manner in which, in a little over a year, this formerly intricate and costly apparatus has been perfected and reduced incost is certainly wonderful.

Uutil this year there were no real search-lights in use except in the navy, and the navy lights were clumsy and complicated, and possessed the single redeeming feature of the expensive lenses imported from France, and which only a first-class government could raise money to pay for. Realizing that there was a good demand for a perfect search-light to be sold at a low price, Mr. S. W. Rushmore investigated the subject, and, finding that the old method of making the large lenses required could not be employed except at enormous cost and after years of study and experimenting, he succeeded in producing the special glass castings required, and perfected a machine for their finishing that brought the cost to but a fraction of that by the old method. He also perfected a lamp mechanism, that while containing fewer parts than the common street lamp, will feed the heavy carbons toward or away from each other with scarcely a volt variation, and keep the light in perfect focus. This is claimed to be the only arc lamp in use that feeds the carbons in both directions while having no motors or contact devices of any kind.

This lamp, shown in figure 2, with the new lense mirror mounted in a sheet metal cylinder, forms the modern high-power projector as made by the Rushmore Dynamo Works, Jersey City, N. J.

The accompanying illustration shows a line of these projectors from 10 inches to 34 inches diameter, and of capacity from 5 to 150 amperes. Other forms of these projectors are made for placing on the roof of pilot-house, with a simple attachment below by which the pilot may throw the light in any direction, and others of the larger type, used chiefly in the navy, have a small motor in the base with wires leading to a small controller, which may be placed at any distance, and by this arrangement the operator may be in a place of shelter, and, being away from the intense beam, may see the lighted object at a much greater distance.

These lights are wind and weather-proof and work perfectly in a gale. They are so reliable, and of such enormous power, and sell at such low prices that they are already in extensive use in all parts of the world, and in the United States and foreign navies. They are now used on most of the leading steamships on the coasts and on the Great Lakes, replacing all other makes.

PRACTICAL ASTRONOMY.

No one can look upon the bright heavens without desiring to know of the wonders revealed there day and night, but the lake sailor can not give the time necessary to obtain a deep grasp of astronomy, so that a book which can give a fair idea of this most enchanting of sciences in a small compass is much to be desired. Such a one Mr. Bayne has attempted to present in this little volume, without the use of mathematics or confusing tables, and he has succeeded admirably. As he explains in the introduction, he can not and does not go into the subject deeply in so small a book, but aims to give a few easily-remembered data of importance in round numbers, without going further into the laws of the universe of stars. However, the interest is well sustained in reading, and one may spend a profitable and pleasant two hours upon it. In a few instances, the author has carried his terseness of expression too far, so that the sentences seem somewwat unfinished, but this does not materially detract from the book, as its primary object is to awake such an interest in astronomy that one will desire to pursue it in larger treatises. A description of the solar system occupies one-half of it, and the remainder is devoted to short accounts of comets and shooting stars, the constellations, nebulæ, the milky way, the fixed stars, and several other interesting notes. It contains about twenty illustrations, and is tastefully bound and printed, withal deserving a place in the libraries of those who desire to gain a brief idea of astronomy. and have not time to separate such from the mass of matter in which it is clothed in more extensive books.

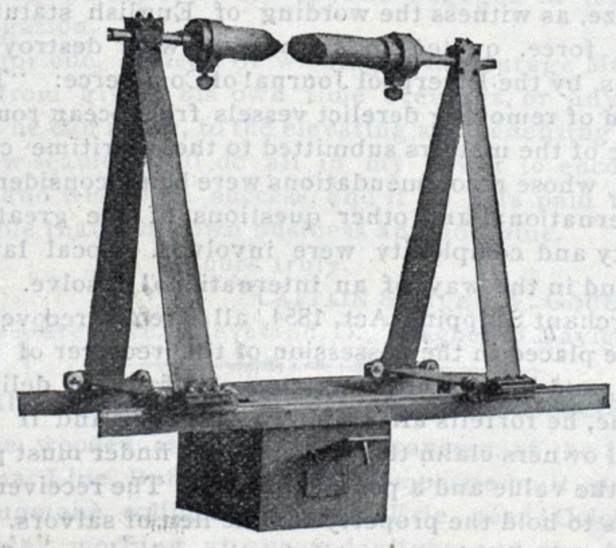


FIG. 2.

By Samuel G. Bayne. 122 pp. New York: Harper & Brothers.

Although grain freights at Chicago are quiet after the late splurge, there is now little demand for tonnage at that port, the Escanaba ore rate held steady at 65 cents and there was quite a little business done at that figure. At other ore shipping ports the movement is light.

NEW YORK YACHTBUILDING.

The new consolidated firms of Gas Engine & Power Co., and Charles L. Seabury & Co , Morris Heights, N. Y., up to the present date have the following contracts in hand:

A steel steam yacht for Mr. Charles Fleischmann, 170 feet long, 138 feet water line, 21 feet beam, 8 feet draft. This boat is to be modern in every particular, and will be fitted with a "Seabury" triple expansion marine engine of most approved design, and a "Seabury" patent safety water tube boiler of latest type. The guaranteed speed is 18 miles per hour. The yacht will be lighted by electricity throughout, steam heated throughout, carry 25-foot naptha launch on davits, have steam windlass, deck houses on forward and after decks, etc., etc. This yacht will be ready for delivery June 1, 1897.

A yacht for Mr. E. S. Woodward, of N. Y., is 85 feet over all, 72 feet water line, 13 feet beam, 5 feet draft. She will be flush deck, schooner rigged and have very fine accommodations for cruising. The owner's quarters will be aft and consist of two large staterooms, main saloon, toilet room, large wardrobe, wine locker, etc. The dining room is in deck house forward with dumb-waiter from galley below. Machinery is triple-expansion engine of "Seabury" design, and "Seabury" safety water tube boiler. Speed 15 miles per hour. Ready for delivery May 1st, 1897.

A 65-foot, twin-screw, naphtha yacht for the U. S. Light-House Department, which is to be used as a tender at the Charleston, (S. C.) district. This boat will be fitted with two 12 h. p., naphtha motors, twin-screw, to have pilot house, saloon, toilet, galley, crew's quarters, engine room, after cockpit. Copper sheathed on bottom, and be ready for delivery in three months.

A 40-foot steam launch for Messrs. Flint, Eddy & Co. for export, to be finished by November 15, 1896. This boat has a 6-foot, 10-inch beam, and draws 2 feet 6 inches. Will be fitted with a simple engine and a "Seabury" safety water tube boiler arranged to burn wood. Speed 10 miles per hour. This boat will be shipped to Mexico.

There is also on the stocks a 40-foot cabin naphtha launch for private party and several smaller launches for customers.

The firm are also building a number of the famous "Seabury" boilers and engines for yachts and launches.

The company's New York office is at 50 Broadway and is kept open all the year round, where models, plans, photographs, etc., of yachts, launches, engines, boilers, etc., can be inspected, both steam, naphtha, sail and electric. The yacht brokerage department is also carried on at the Broadway office.

We learn from our foreign exchanges that the Tyne is well supplied with naval work. The Armstrong Co. alone have eleven battleships and cruisers in hand, of which ten are for foreign powers; Palmer's Shipbuilding and Iron Co. have two third-class cruisers and eight torpedo boat destroyers under construction; and Messrs. R. & W. Hawthorn, Leslie & Co., Limited, two torpedo-boat destroyers, besides important engineering contracts. Thus, there are in all twenty-three naval vessels now building on the Tyne. It is quite probable, moreover, that, in the course of a week or two, another huge battleship and a fast cruiser will be added to this tale of work, for the Spanish order, which has recently been in the market, is to be placed with the Elswick establishment. The contracts have not been formally signed, it is true; but the commission appointed to open and consider the tenders has unreservedly decided in favor of Armstrong's, and to Armstrong's the order will go.

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A SHINING LIGHT CALLED HENCE.

With this issue we have to announce the death of Mr. Wm. L. McCormick, late editor of THE MARINE RECORD, a man whom to know, was to honor, and we knew him in part with our large clientele. Mr. McCormick was not a sailor, but he was a gentleman and his long connection with the Cleveland Leader, Press, and later as editor of THE RECORD, vouches for his standing as a man in literary circles. W. L. McCormick has gone to his long home, his literary associates will mourn his loss, nor can his position be so capably filled in the columns of the local press. He was a faithful, earnest worker, ever alive to the interests of the marine fraternity and his friends. His life was a pure synopsis of what a man's should be, earnest, upright and honest in every course steered, and at each stage of the game of life. Regrets are heard from various sources, but Mr. McCormick would not care to be eulogized. Let us extend our sympathy to his wife, children and sorrowing family. He has gone as we all must. The grand secret is now explored. Warm, loving hearts and hands bore him to his temporary abode, to rest after life's fitful fever. Henceforth, Mr. McCormick is, we think, numbered with the blest in the glory land where all who desire perfection aspire to. Mr. McCormick made among his friends some of the best known people in Cleveland, also on the lakes. His loss in marine circles is irreparable, nor can his place be filled at this time by any writer on maritime subjects.

THERE is a good-sized kick being made at Port Huron about the location of the new life-saving station at that port. It appears that the general impression of marine men is in favor of the station being built on the light-house reserve, at Fort Gratiot light, instead of which it is now learned that a place has been picked out no less than three miles from the light-house reserve, and at a spot said to favor the city railroad company and not the vessel interests. The superintendent of the life-saving district should give this matter some more consideration before finally locating the station.

OUR UNION'S FLAG.

Apropos to the recent desecration of the American flag, treated of four weeks ago in these columns, we now find that the sentiment therein expressed has pervaded the entire country and that no less a personage than the national chairman of the Republican committee has issued a manifesto calling upon all adherents of his party to fling out to the breeze the national emblem as universally recognized, and, without adding to or taking from one tittle of its, let us say actuality. Still more of it, Mr. Bryan, the presidential candidate of the Democratic party, it seems has endorsed the ultimatum arrived at by Chairman Hanna. Now let us remember that on all occasions in the future our national flag or insignia must be floated as it is, and without adding the pictures of political aspirants, their names or any other twaddle to tarnish its glory. The Cleveland Plain Dealer on Sunday last referred to the flag being raised over the public schools and the *raison d'etre*, therefor just as advocated in THE RECORD several weeks ago. Chicago, Milwaukee and other large cities started the campaign earlier, and, though our exchange table fairly groans with its present weight we have yet to see or hear of a scribbler who would dare to advocate a continuance of the desecration of the stars and stripes. It of course took the leading marine journal of the western country, or indeed of the United States, to point out the absurdity which was being perpetrated upon law-abiding citizens and patriotic Americans, and now having done so, we let the matter drop, as neither politics, religion or scandal can find any place in these columns. We may further add that the flag we sail under is to be upheld under all circumstances and to the last gasp when, or if necessary, but no political rag or an abortion of "Old Glory" need call forth anything but ridicule and disgust from American citizens. As we have said, let us have all the bunting in banners, flags or pennants that any party is willing to pay for, we can't have too much of it, let it float, but the thoughtless individual or idiot that dares to desecrate the stars and stripes by adding to or taking from its honored folds one stitch of its entirety ought simply to be massacred, and that, too, without judge or jury. That the foregoing view is gaining ground is now beyond question, for we find the Cleveland Leader, a big Northern Ohio daily of the Republican stripe, waking up on Monday last in the following strain: "The flag stands for everything that is good in the republic—everything that is worth fighting for and preserving" * * * and we would simply say in addition to the foregoing editorial quotation, so mote it be.

DESTROYING OCEAN DERELICTS.

The United States has now committed itself to the duty of destroying Atlantic derelicts over a portion of the ground sought to be covered by an international agreement, futhermore, other nations seem to be in consonance with Uncle Sam.

Yet, the older maritime powers were not a position to enter upon this work so cavalierly, if such the course may be styled, as the Navy Department has been fit to authorize, as witness the wording of English statutes, now in force, quoted in connection with destroying derelicts, by the Liverpool Journal of Commerce: "The question of removing derelict vessels from ocean routes was one of the matters submitted to the maritime conference, whose recommendations were being considered, but international and other questions of the greatest difficulty and complexity were involved. Local laws, too, stand in the way of an international resolve. By the Merchant Shipping Act, 1854, all wrecks recovered must be placed in the possession of the receiver of the district, and if he is not the owner and fails to deliver the same, he forfeits all claim to salvage, and if the rightful owners claim the property, the finder must pay double the value and a penalty of $100. The receiver of wreck is to hold the property for the lien of salvors. A somewhat similar law prevails in the colonies, and in every maritime state of the world. The punishment for unlawfully or maliciously destroying a wreck is two years' imprisonment as a felon. (24 and 25 Vic., cap. 96 sec. 64.) Selling any derelict ship or boat, or any of its cargo or apparel, subjects the offender to penal servitude for five years. (17 and 18 Vic., cap. 104, sec. 479, and 27 and 28 Vic., cap. 47, sec. 2). The statutes must be amended before permission can be given to salvors to destroy ships or to appropriate cargoes. Any person is at liberty to recover derelict vessels, flotsam, or jetsam; but the law must be complied with. Abuses would creep in under certain circumstances. The idea of employing ships of war for this duty removes the chances of wilful destruction.

That the recommendation of the Washington maritime conference will ultimately be carried out we feel quite certain, though safeguards may have to be provided so as to avoid international complications. Weeks after a vessel has been abandoned, search and salvage expeditions have been fitted out to tow her into port and it will not be well received if any of these expeditions arrive on the ground only to find that the property has been wantonly destroyed, so we would say to the Hydrographic Office and the Navy Department, go easy on this matter.

DEEPER CHANNELS.

This week the steamer Queen City, of Duluth, broke all grain-carrying records on Lake Superior by taking from that port 176,000 bushels of grain. This increase in load is made possible by the new cut at the Sailors' Encampment, in St. Mary's River, just completed.

Vessels can now load to a depth of 16½ feet instead of 14½ feet, the maximum draught heretofore possible with the water at a normal stage. During a period of low water at the beginning of the present season vessels in the Lake Superior trade could load to a depth of only 14 feet.

The effect of this deepening of the cut will be very beneficial to the Lake Superior grain and ore trades. The large steamer Appomattox was the first vessel to take advantage of the deepened cut, and she was enabled to increase her cargo to the extent of 15,000 bushels of grain. The increase in the size of the average cargo will not, of course, be entirely to the benefit of the vessel owner. Competitors for cargoes will soon figure the advantages of the new channel to their fullest extent, and shippers and grain raisers will then participate in the benefits accruing from the deepening of the important waterway.

This new cut is but one step of the great work in progress—the deepening of the connecting channels of the Great Lakes to 20 feet, which will be completed in a few years. Then every large steamer will have her cargo-carrying capacity largely increased. Steamers are now afloat, and others are on the stocks, which when the 20-foot channels are ready will be able to carry from 4,000 to 6,000 tons of iron ore. The freighting of these immense loads will cost no more than the carrying of the comparatively small loads that are now the maximum possibility, and this will enable the vessel owners to carry the freight for less money.

REHABILITATE THE MERCHANT MARINE.

Let us ask the supervising inspector general of the United States steamboat inspection service, his board of supervising inspectors or even the commissioner of navigation, and especially the latter, what penalty, if any, is attached to the illegal use of an annual license to act as engineer, master or pilot of an American steam vessel? Local inspectors state that there is no penalty enacted for one man using another's license. How is this, heads of departments? Surely laws have not been enacted for nearly half a century without a safety or binding clause! There is no such a thing as a danger or distress signal known to the enormous floating traffic on the Great Lakes; this is simply a matter of course, or ignorance as must be expected from the way that the department is handled on the lakes outside of Cleveland and perhaps Chicago. The meeting, passing and overtaking clauses are best observed in the non-compliance with the asinine rules now in existence on paper, the White law to the contrary notwithstanding, but we were not quite prepared to learn that shoeblacks, soldiers or mountebanks might be in a position to take charge of steamers on other men's papers, yet, we are assured that such cases are not only probable, but are frequently met with. It is certainly high time that the steamboat inspection service braced up and gave the mercantile marine a chance to rehabilitate under a proper and craft-loving guidance, or at least sympathetic desires for its advancement. Much of our lackness in the over-sea carrying trade may be due to the general administration and ignorant rulings of the present constituted authorities, who are supposed to facilitate, but instead, simply retard its technical, thorough and commercial development. Ask your candidates to know something and examine your examiners, Mr. Dumont.

MARITIME LAW.

BODEN v. DEMWOLF et al.

District Court, E. D. Louisiana. June 16, 1895.

1. ADMIRALTY PLEADING—LIBEL—AMENDMENT. A libel having been filed against a ship and a person named as owner, a third person appeared, and claimed as owner, setting up in his answer that he was the true owner. A release bond was given, signed by the master, as lawful bailee of such third person, and by sureties. Held, that the sureties would not be affected by the allowance of an amendment making the third person a party respondent to the libel, and such amendment may be made.

2. SHIPPING—NEGLIGENCE—INJURY TO STEVEDORE'S EMPLOYE. A stevedore's employe, who, after the work of loading is either finished or suspended, goes into the hold to get his coat, is lawfully there, and the shipowner is under obligation to avoid injuring him by want of reasonable care.

3. SAME—FELLOW SERVANTS. Where a stevedore's employe is killed by the fall of a block and tackle because but one man is managing the same, the wrong cannot be laid to the negligence of a fellow servant, but is chargeable to the general management of the ship, for which the owners are responsible.

4. DEATH BY WRONGFUL ACT—MEASURE OF DAMAGES. Under a libel to recover for the wrongful death of a stevedore's employe, it appeared that deceased was about 50 years old, had a wife and four children, and received fifty cents an hour when he worked, but there was nothing further to show the amount of his earnings. Held, that $1,500 should be awarded to the next of kin.

In Admiralty. Libel to recover damages for alleged negligence causing death. Decree for libelant.

Billings, District Judge. This is a suit brought by Bertha Boden, as widow of Joseph Brown, and as mother and natural tutrix of his minor children, against Capt. C. Demwolf, master of the German steamship Kerweider, and against Hausa, Dempfschiff & Rhederic, owners of said steamship, for damages occasioned by the death of the husband and father, Joseph Brown. The process in this case was that authorized by rule No. 2 in admiralty, and, in default of the defendants being found, the steamship itself was attached.

The first question to be considered is as to the propriety of allowing an amendment which comes up in this way. Upon the seizure of the steamship Kerweider, the Hamburg-American Packet Co. appeared as claimants, and bonded the steamship. The application is to amend the libel by substituting as defendant the name of this corporation in place of the persons named as owners in the libel. There would be difficulty in allowing this, but for the peculiar character of the answer, and of the bond of release of the steamship. The answer in the case is that of this corporation, Hamburg-American Packet Co., which proceeds to state that it, and not the parties named as owners, are the true owners of the steamship Kerweider, and then further proceeds to answer the libel upon the merits. But, as matter of form, there would be no need of any amendment, because, if A is sued as owner causing damage, and B sees fit to come into the case and submit himself to the jurisdiction of the court, stating that he and not A, is the owner, and submits the cause upon the merits, the amendment would follow, as of course, provided the libelant was willing to admit that the fact of ownership was truly stated in B's answer.

The question upon the merits is a simple one. Joseph Brown was an employe of the stevedore who had been engaged in loading the steamship. The work was either suspended or altogether completed—there seems to be some question about which was the fact—when he went back into the hold for his coat. It is not necessary to consider whether it was a fact established by the evidence that the work was altogether through, or merely suspended. In either case the libelant was rightfully where he was at the time of the accident, his object being to get his coat which had been left in the hold. It might, perhaps, be urged successfully, also, that he had special relations to the vessel, by virtue of his having been an employe of the stevedore, but it is not necessary to consider that. It is enough that he had business with the vessel which made his presence proper. Leathers v. Blessing, 105 U. S. 626. Under those circumstances, if there were no special facts creating any obligation, the owners of the vessel were bound to avoid injuring him by want of reasonable diligence.

As to the negligence: The negligence charged is that there was but one man to manage a block and tackle, whereas there should have been more, which block and tackle fell upon Joseph Brown and caused his death. I think the evidence shows there was but one man managing the block and tackle at the time of the accident, and that one man was not sufficient. It is urged that this is a fault of a fellow workman or employe. I think it clearly falls within the faults resulting from the management of the vessel itself.

It was urged strenuously that the jurisdiction in admiralty to enforce the right of recovery claimed in this action is not maintainable. The last utterance of the Supreme Court bearing on this question is in The Corsair, 145 U. S. 335, 12 Sup. Ct. Rep. 949, which, I think, looks strongly to maintaining the jurisdiction.

As to the amount of damages: The husband and father was about fifty years old, and had a wife and four children. His wages were fifty cents an hour when he worked. The testimony as to the facts showing the value of his life goes but a little way beyond this general outline. In the case of Cheatham v. Red River Line, 56 Fed. Rep. 248, I stated the general grounds upon which damages in case of death should be measured. It is to be observed that the amount of his earnings is left indefinite. Under all these circumstances, I think $1,500 would be a just and adequate amount as to the damages to be recovered by the next of kin. Let there be judgment, therefore, for that amount, with interest from the date of the death of Joseph Brown, to wit, January 11, 1893. Fed. Rep., Vol. 56.

THAT CHICAGO SCHOOL AGAIN.

To the Editor of The Marine Record:

ESCANABA, Oct. 19, 1896.

DEAR SIR.—In a recent issue of your paper appeared a letter dated at Buffalo and signed a Teacher of Navigation, critizing Mr. Wilson of the Chicago Hydrographic office for starting a navigation school in Chicago. As I have been engaged in that business for the past three winters at Cleveland, Ohio, and am well known by most lake men, some of whom have got the impression that I was the writer, I wish to state for the benefit of my friends and others, that no man is more pleased than myself to know that Mr. Wilson has opened such a school, and anything I can do to encourage him to continue in the good and much needed work he has undertaken, will be willingly done. I know Mr. Wilson personally, and that he is a gentleman at all times and to everyone who calls at his office, and does give any information free of cost and with pleasure to any one calling during office hours. I do know, also, it was at the earnest request of many of his friends in Chicago, who desired the instructions in navigation which he is giving, that he reluctantly consented to start a school, as no one else was keeping a school there to give instruction in navigation.

I, for my part, am glad to know there is such a school on the lakes, and I would like to see one started in every port, as I consider it would create a desire among our sailing fraternity in places where there was none, for the same knowledge which others were acquiring in ports where there were schools established, thereby making plenty to do for anyone engaged in teaching navigation.

I, for one, instead of wishing to discourage Mr. Wilson from giving his own time evenings, or any other time he can spare, to the elevating and benefiting of my fellow seamen, will do all in my power to encourage him and wish him success, and if he gets paid for his trouble that is his own business and not mine.

Yours truly,

CAPTAIN SAMUEL W. GOULD,

265 Marcy ave., Cleveland, O., Teacher of Navigation.

GRAND TRAVERSE-LIVINGSTONE COLLISION.

The wooden steamer Grand Traverse, of the Lackawanna Line, Buffalo, and the composite-built steamer Livingstone collided on Lake Erie near Colchester Tuesday morning at about daylight and the former vessel sunk. It is thought that she will become a total loss.

The Grand Traverse went ashore one fall at Grand Marais, Lake Superior, and after spending an entire winter in the ice was released in the middle of the following summer, and was taken to Detroit for repairs. She was rebuilt and her name changed from Morley to the present one. She was built at Marine City by the late W. P. Morley in 1879. She registers 869 tons, was 181 feet long and 33 feet beam. She rated A2, was valued at $25,000 and is insured for the full amount. She was commanded by Capt. Kelley, of Buffalo, and the Livingstone by Capt. Wilson, of Detroit. The Livingstone was built by the Detroit Dry-Dock Co. seven years ago, is owned by Palmer, Livingstone and others, of Detroit, registers 1,622 tons and is valued at $160,000 and rates A1*. The crew of the Grand Traverse, who lost all their effects, were given transportation by their agent, John Stevenson, and left in the afternoon for Buffalo.

The cargo of the Grand Traverse was valued at $7,000. The underwriters have ordered the wreck lighted at night.

SCREW-PROPELLER DESIGNS.

The mechanical scientists of the old country think that they have found out something in the matter of screw propulsion, as we find the following in the Shipping World, of London:

SIR—In your issue of September 16, Sir C. Purcell Taylor, D. Sc., says that Mr. Chase is mistaken when he states that: "It is very doubtful whether there will ever be devised a formula that can universally be applied to determine the best form and the most advantageous dimensions for a screw propeller under any given set of conditions." Will you kindly allow me space to point out that Professor R. L. Weighton, of the Durham College of Science; Professor Froude, who recently conducted the Admiralty experiments; Mr. Seaton, of Messrs. Earle's, Hull; the late Mr. Denny, of Dumbarton; and the late Mr. F. W. Wilcox, of Sunderland, were and are of the same opinion as Mr. Chase?

It is a well known fact that scarcely any two firms of engine builders design their screw propellers on the same lines, as each have their own ideas as to the best form of blade, and the distribution of its surface, and the other factors that should be taken into consideration when designing screw propellers; and each firm is guided by previous experience and by the experience of others. As an instance showing the difference of opinion as to the correct formula and shape for design, take for example the patent "Improved" screw propeller invented by the late Mr. F. W. Wilcox, of Sunderland, which propeller has been very successful. This is designed upon lines and from formulæ deduced from over ten years' experience in designing and manufacturing screw propellers, and was patented by the late Mr. F. W. Wilcox when as nearly perfect as he considered it possible to make it. As the formulæ and generating lines used by the late Mr. F. W. Wilcox, and by Messrs. Wilcox Bros., of Sunderland—who are the sole designers and manufacturers of this propeller—are of an entirely private nature and have not been published to the world at large, and as Messrs. Wilcox Bros. are continuing the designing and manufacturing of this propeller, these cannot be given here. However, I feel that I am justified in upholding Mr. Chase's opinion.

I may also mention that I am of opinion that a fixed formula not containing varying co-efficients, could only be used in the case of designing exactly similar propellers for similar vessels with corresponding powers and speeds. I am, yours truly, HARRY GRAY.

Dominion House, 110 Fenchurch Street, E. C., September 30.

SEIZED THE NETS.

The Dominion government's fishery cruiser Petrel discovered a tug in the act of setting nets within the prescribed limits near Port Stanley on Thursday last and immediately made for her. The captain of the tug espied the cruiser and tried to escape, but the latter was too speedy for her and overhauled the tug after a short chase. The tug proved to be the Edna Goodill of Erie, Pa. Capt. Bunn of the Petrel after searching the tug allowed her to go. The Petrel then returned to where the nets were and picked them up. There were 105 nets in all.

Captain Dash also had nets north of the others, and, on hearing the news that the Petrel was patrolling about there, at once steamed to where his nets were being confiscated.

He dared not protest for fear of having his tug confiscated. Captain Dash says he is quite sure that his nets were on the American side of the line, and says the captain of the Petrel has a habit of estimating the line according to his own ideas. Dash estimates his loss on nets at $700.

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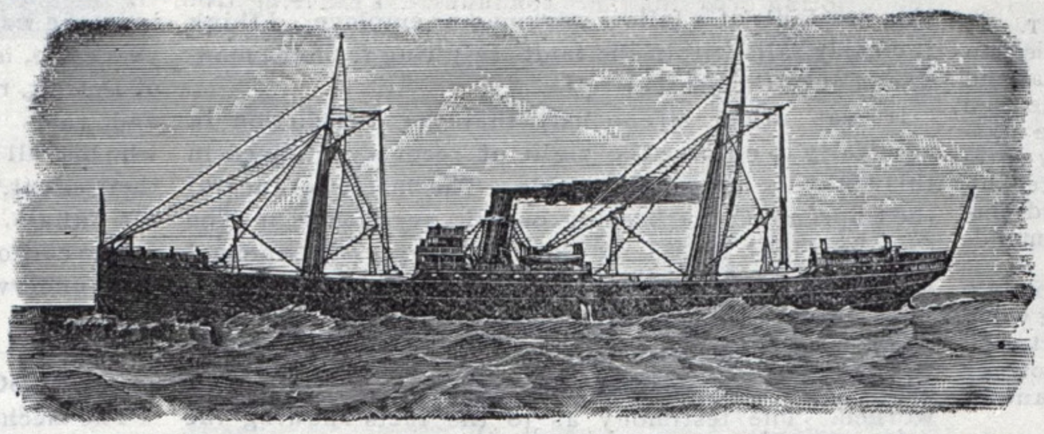

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CORRESPONDENCE.

☞We do not hold ourselves responsible in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

DANGER OR DISTRESS SIGNALS.

GODERICH, ONT., Oct. 19, 1896.

To the Editor of The Marine Record:

I notice a letter from F. Boutin, keeper of life-saving station at Milwaukee. I agree with the said keeper regarding the distress signal. It is the too common error of masters of tow barges when parted from the steamer having them in tow, to at once hoist a distress signal when their lives are not in danger, but simply require a tug.

If you look over your file you will find that I called your attention to this very matter late last fall in the case of the Mike Corrie.

I would suggest that all sail craft carry rockets to be used for distress signals by night and the inverted ensign by day, but for no other purpose should the above signals be given. Should a sail craft need the assistance of a tug at night let them burn the torch and by day drop their fly, then the life-savers would not run the risk of losing their lives or being driven from their station at a time when their services are required to save life elsewhere, which is their first duty, hence, they are blamed for not being on hand. You, Mr. Editor, made some good remarks to my letter last fall on this matter, and still there has been nothing done.

CAPT. WM. BABB, Volunteer L. S. S.

THAT CHICAGO NAVIGATION SCHOOL.

CHICAGO, October 19, 1896.

To the Editor of The Marine Record:

I have been a pretty close reader of your valuable journal for several years, and have admired its spirit of fairness in discussing all matters pertaining to the lake marine. Consequently I have been led to believe that an article which appeared in your columns recently, attacking the nautical school installed by Mr. W. J. Wilson, of the Hydrographic Office, was inspired by a mistaken idea of the facts of the case.

Previous to the opening of this school here, there was no place in Chicago, that I could learn of, where navigation and all that pertains to its study could be learned in a thorough manner. In opening a school then, Mr. Wilson has wrought no one a hardship on account of his being in the service of the government. Then, Mr. Wilson holds his school after office hours are over, and not in the rooms occupied by the Hydrographic Office, as has been stated. During office hours I have always found Mr. Wilson at his post of duty, and ready and willing to give all information in his power to visitors, even going farther in some cases than the aims of the service involved. This was all free of charge. It was largely on account of this knowledge so freely given that many vessel masters desired him to open his school last year, as they wished to be able to repay him for his teachings.

I am not a vessel master, nor a member of the naval militia, but an enthusiastic member of Chicago's Fraternity of Yachtsmen. We amateur sailors have to get most of our experience from actual practice, supplemented by what we can learn from books. Therefore, we hailed the school of navigation as a boon, knowing we could get information there which would be of material aid to us in the summer's cruises. If we had known of any such school in the past, we would have patronized that.

I know that Mr. Wilson has cheerfully offered to cooperate with several navigators, if they would open schools for vesselmen. In every case they have refused and desired him to keep up his classes as they wished to attend. The whole course of study of his life has fitted him for this work in a most thorough manner, and his teachings cannot but benefit all sailormen who receive them. It will also tend to cause other schools to be established in all the principal lake ports, and instead of his monopolizing the business and forcing other teachers out of the field, he will make business for them in the future.

YACHTSMAN.

Beeson's Marine Directory reflects on every page the energy, ability and enterprise of its publisher. It has been largely increased in size so that it now comprises all that is of value in the American Government Blue Book, the Inland Lloyd's Register and his own work as formerly compiled, so that it is of value to all people whose connection with the lake marine requires on occasions a ready reference volume.—Detroit Free Press. For sale at MARINE RECORD office, Western Reserve Bldg., $5.

A DAVIDSON LAUNCH.

A new steamship, known as "No. 77," in the shipbuilding yards at Bay City, was launched on Thursday afternoon at the yards of Capt. James Davidson. This boat is fully completed and fitted out, but she will remain laid up at the ship yards where launched until the opening of navigation next season. She is rated A1* in the Inland Lloyd's insurance register, and has, also, the highest class in the U. S. Standard Register of New York City. No government papers will be issued for this new steamer until next spring, when she will go into commission. She will not be named, thus giving purchasing parties, should she be sold before the opening of navigation next season, a chance to provide any name they choose. The vessel will probably be valued in the Lloyds at about $125,000.

The dimensions of the new steamer are: Length over all, 285 feet; beam, 43½ feet, and moulded depth, 25 feet. She has no laid 'tween decks, but she is very substantially constructed, being diagonally strapped and having heavy steel arches, steel cords and double steel keelson plates.

"No. 77" is fitted with the latest and most modern machinery, both for easy handling and economy in running. She is furnished with steam windlass and steam capstan, steam steering gear, steam deck hoist and steam pumps amidships, and steam capstan aft. She has also patent stockless anchors.

The cabins are finished in hardwood, oil, etc., and the deck, cabins and hold are lighted by an electric lighting plant which is stationed in the engine room.

The engine is of the triple expansion type, with cylinders 16, 25, 42 by 34-inch stroke. It is fitted with steam reverse gear, Joy valve gear and others of the latest improvements.

The boat is furnished with a steel boiler 12 feet 3 inches in diameter and 12 feet in length, is allowed a steam pressure of 160 pounds, and she is fitted with the Howden system of forced draught. By means of this system it is possible to burn the cheapest grade of fuel; and with slack coal or screenings, the engine will develop wonderful results, both with reference to speed and also the consumption of fuel, it being estimated that a saving of at least 25 per cent. is obtained.

This new steamship is built for carrying bulk cargo, and will go into commission at the beginning of next season.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD by George F. Stone, Secretary Chicago Board of Trade, October 17, 1896:

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Albany	.....	40,000	100 000	.....	.....
Baltimore	839,000	1,224 000	905,000	109 000	.....
Boston	1,305,000	266 000	138 000	.....	.....
Buffalo	1.880,000	243,000	386,000	97,000	295 000
" afloat	.....	.....	.....	.....	.....
Chicago	15.361,000	7,228.000	2,542.000	587,000	194 000
" afloat	.....	.....	.....	.....	.....
Cincinnati	1,000	2 000	14.000	1 000	26,000
Detroit	492.000	59,000	41.000	45,000	.....
" afloat	.....	.....	.....	.....	.....
Duluth and Superior	5,477.000	22,000	213,000	302,000	862,000
" " afloat	.....	.....	.....	.....	.....
Indianapolis	257.000	30.000	.....	.....	.....
Kansas City	588,000	34,000	105,000	3.000	.....
Milwaukee	336,000	68,000	6.000	156 000	104,000
" afloat	.....	.....	.....	.....	.....
Minneapolis	14 527 000	16 000	240 000	8 000	15,000
Montreal	567.000	29,000	300,000	16,000	47,000
New York	5,297.000	2,629,000	2 267,000	374,000	85,000
" afloat	64 000	.....	25 000	23,000	10,000
Oswego	18,000	.....	.....	.....	28,000
Peoria	196.000	147.000	488.000	13.000	5,000
Philadelphia	444 000	808.000	130.000	.....	.....
St. Louis	3,393,000	137,000	70,000	16.000	1,000
" afloat	40,000	26,000	.....	.....	.....
Toledo	772,000	17,000	405,000	94,000	.....
" afloat	.....	.....	.....	.....	.....
Toronto	237.000	.....	63.000	.....	31,000
On Canal	496,000	33,000	494.000	306,000	539.000
On Lakes	2,221.000	4,117,000	1,004.000	200,000	1,169,000
On Mississippi	.....	.....	199.000	.....	.....
Grand Total	54.808.000	17,175,000	10,135,000	2,350.000	3,411,000
Corresponding date 1895	46,199,000	6,479 000	4,380 000	879,000	3,701,000

LITERARY NOTICE.

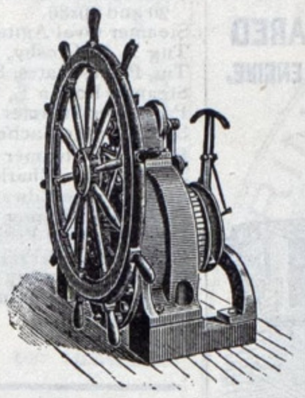
There comes to our exchange table this week a work published by Charles Griffin & Co., which they call their "Nautical Series," compiled by Thomas Mackenzie, a master mariner and Fellow of the Royal Astronomical Society, etc. In looking over the book we find that it is a commendable addition to the "Nautical Series" of publications, and one which every person sailing should have at hand, more especially, perhaps, the piloting or seamanship community as differing from the engineering corps. However, with the concise explanations and the illustrations, all parties concerned with shipboard duties will find this volume one of the most interesting that they have ever perused. The Griffin Co. should send us all they have on this subject, so that we could judge what they are doing, or intend to do, in the matter of nautical publications. Certainly, the present volume, or the one now before us, is worthy of commendation to the sailing community, owners and builders. The author says that the work is written by sailors for sailors, and that the treatment of subjects is as free as possible from abstruse technicalities, while the style is such as will render it easy for the young sailor to gain a knowledge of the elements of his profession by private reading and without difficulty, and it appears that he has reached his point. We therefore recommend this work to all interested in tonnage and the practical management thereof—feeling assured that they will gain something by a careful perusal of its pages.

The "roller ship" Ernest Bazin, which is to create a revolution in navigation, will not face the waves in the English channel so soon as was intended; she stranded on a sandbank in the Seine before she got down to Rouen, while in tow of a tug; her metal superstructures have had to be removed, while the "rollers," which were much damaged, are undergoing repairs.

HARPER'S MAGAZINE.

An important feature of Harper's Magazine for several months to come will be Poultney Bigelow's series of papers on the "White Man's Africa," treating in the author's original and striking way the new continent recently opened up to European exploitation. The first paper in the November number will give a novel view of Jameson's raid from material placed in the author's hand by an English physician and a Boer official—thus presenting both sides of this remarkable episode. The series is the result of a journey to South Africa undertaken by Mr. Bigelow for Harper's Magazine, and is to be illustrated from photographs specially made for the purpose.

THE SICK HUSBAND.—"Ah well, Henrietta, dear, its no good wailing; the doctor says it's small-pox I've got, and so I must grin and bear it. But if any of my creditors call you may tell 'em I'm at last in a position to give 'em something."



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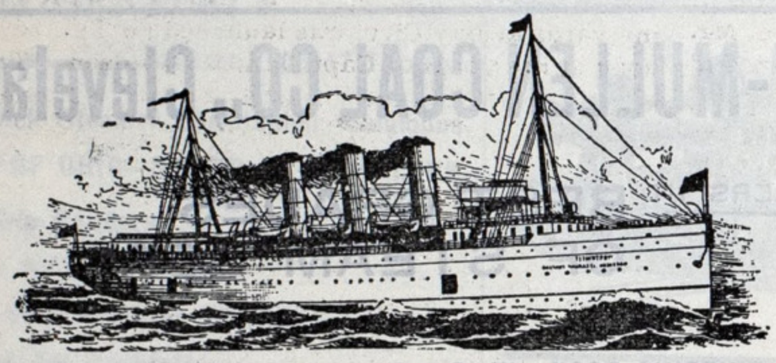

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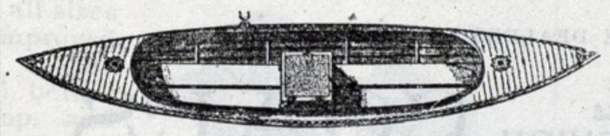

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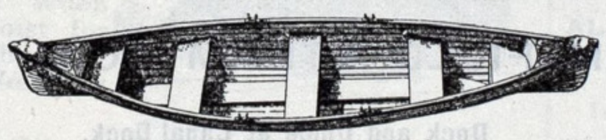

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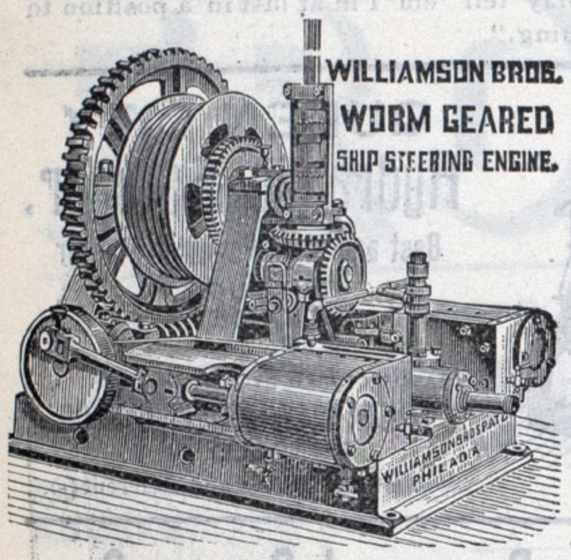

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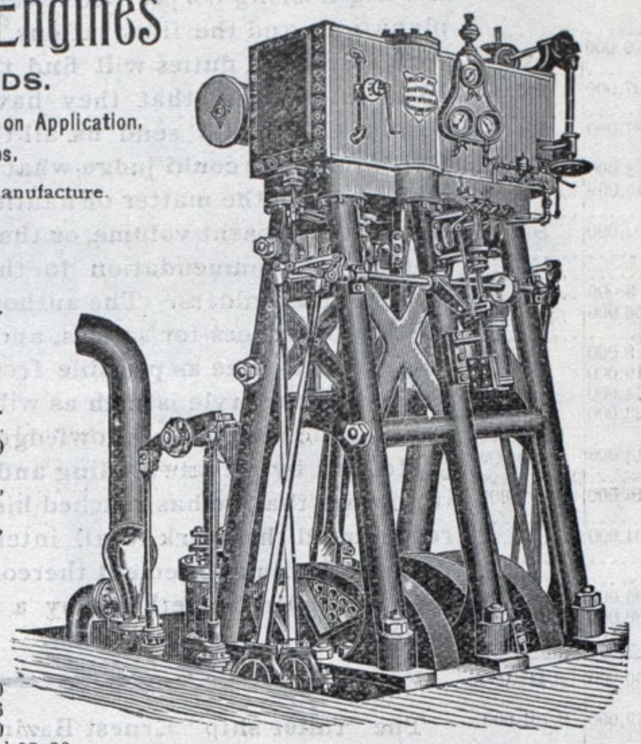

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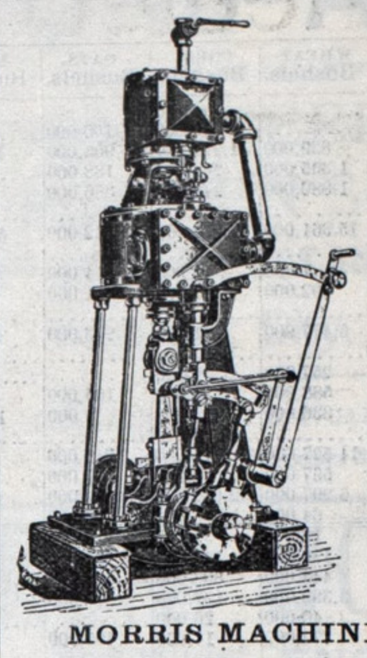

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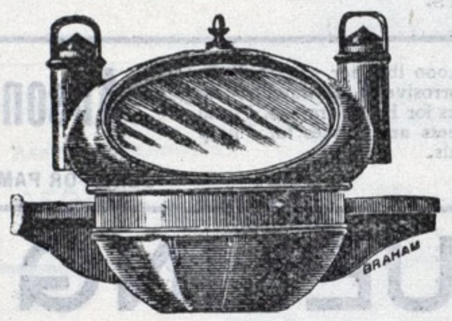

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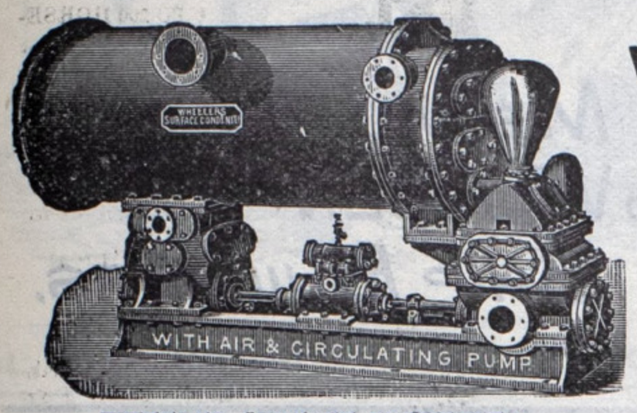

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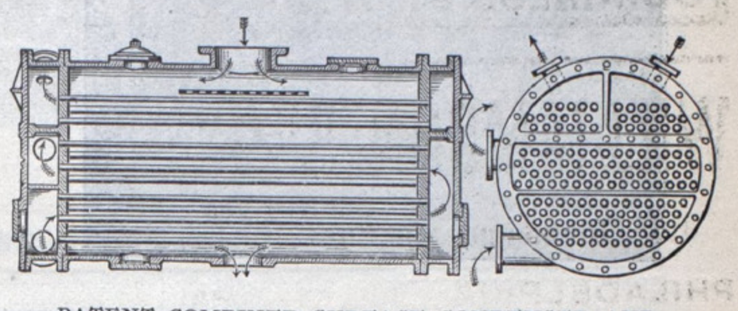

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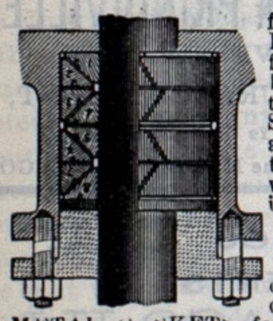

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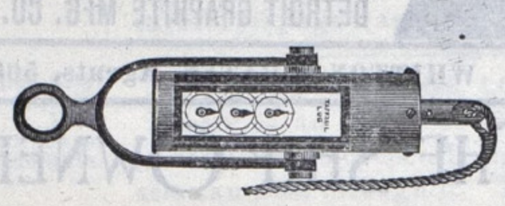

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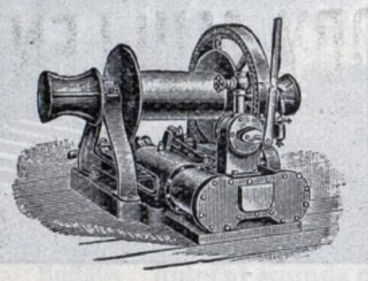

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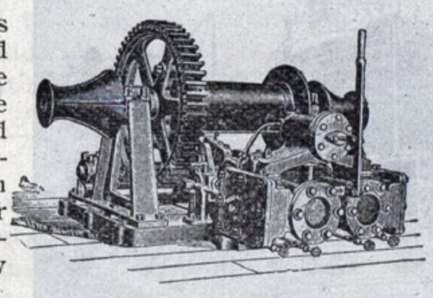

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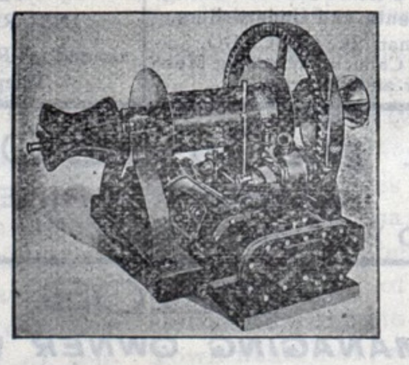

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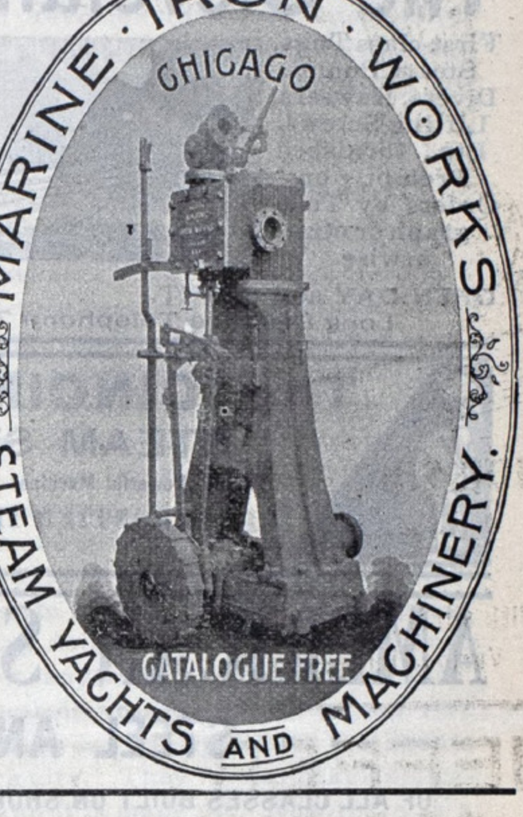

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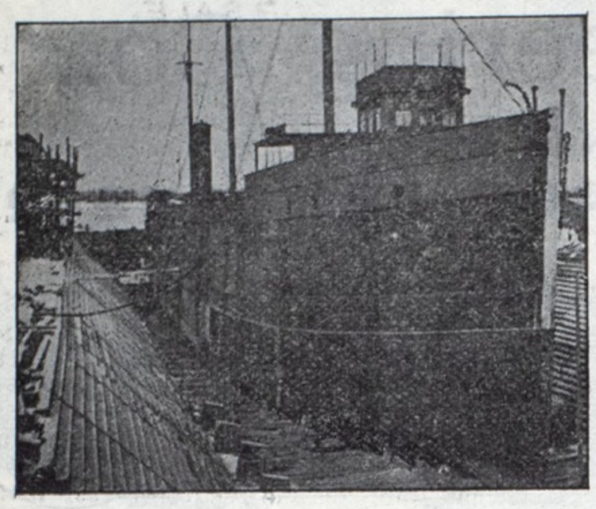

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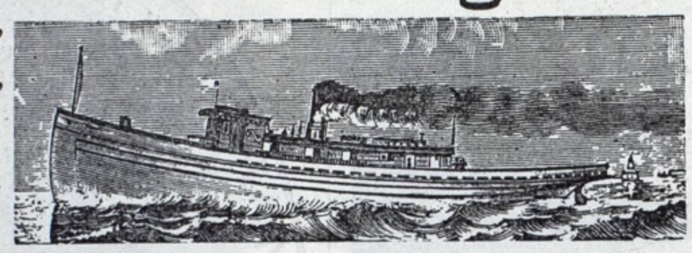

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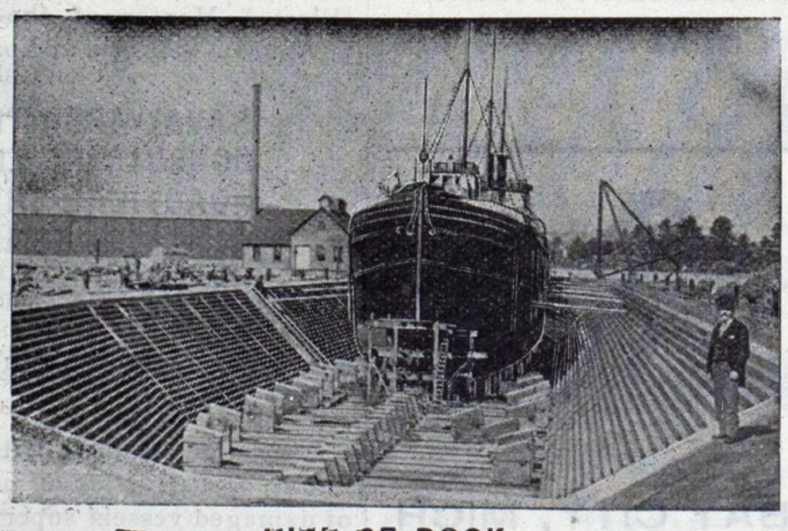

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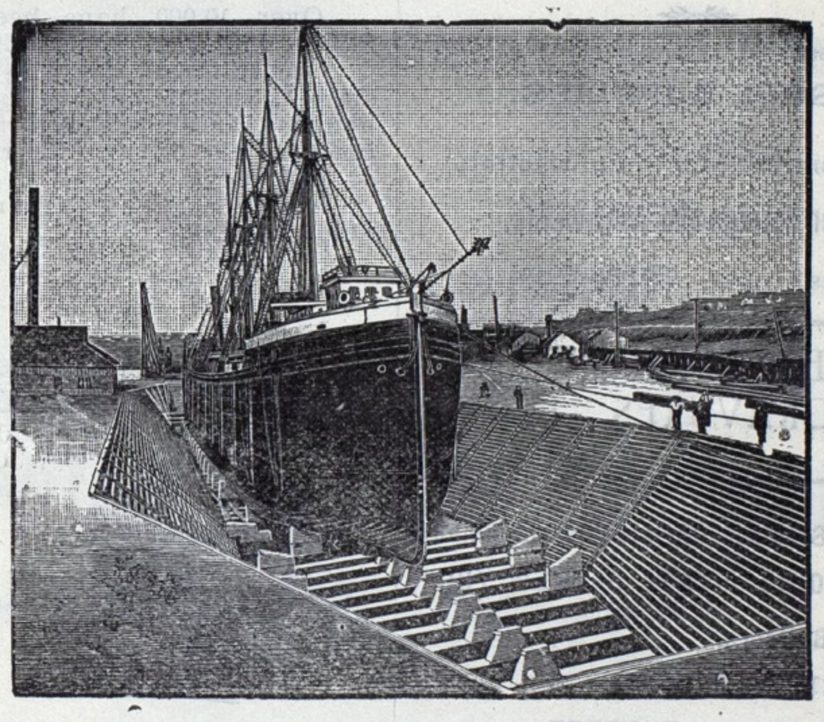

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